

REMARKS

Claims 3-16 are all the claims pending in the application. By this Amendment, Applicant amends claims 3, 5, 6, 7, 9, and 10 to further clarify the invention. In addition, Applicant rewrites claim 8 in its independent form.

In addition, Applicant adds claims 13-16. Claims 13-16 are clearly supported throughout the specification, *e.g.*, see Fig. 1 and pages 3-6 of the Specification.

Claim Rejections under 35 U.S.C. § 102

Claims 3, 5-7, and 9-12 are rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,519,254 to Chuah et al. (hereinafter “Chuah”). Applicant respectfully traverses this rejection in view of the following comments.

To be an “anticipation” rejection under 35 U.S.C. § 102, the reference must teach every element and recitation of the Applicant’s claims. Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the reference must clearly and unequivocally disclose every element and recitation of the claimed invention.

To begin, independent claim 3, among a number of unique features not taught by the prior art, recites: “service level proposal receiving means: adapted to receive from said DRE an IPCP message indicating a proposed service level that said DRE can provide for communicating said data of said DTE over said second communications network, and notifying said DSM of said received service level proposal” and “said DRE receives said data of the DTE over said first

communication network and transmits said data of the DTE in said second communications network.” The Examiner alleges that claim 3 is directed to a data transmitting element and is anticipated by Chuah.

The Examiner asserts that Chuah’s tunnel source point (TSP), tunnel destination point (TDP), network between the TSP and the TDP (internet service providers), and network between the TDP and the receiver or the network between the TSP and the sender are equivalent to the DTE, DRE, the first network, and the second network, respectively, as set forth in claim 3. The Examiner further alleges that the TSP receives the RSVP RESV message that includes TUNNEL_BINDING object sent from the TDP and is equivalent to data transmitting element comprising a service level proposal receiving means adapted to receive a message indicating proposed service level that the DRE can provide for communicating said data of said DTE over said second communication network and notifying the DSM of said received service level, as set forth in claim 3 (see pages 5-6 of the Office Action).

Applicant respectfully disagrees with the Examiner. Applicant has carefully studied Chuah’s discussion of TSP receiving a RSVP RESV message with TUNNEL_BINDING object for setting up tunnels between the TSP and the TDP, which is not similar to service level proposal receiving means receiving a message indicating the proposed service level that the DRE can provide for communicating over the second network as set forth in claim 3.

In the exemplary, non-limiting embodiment of the present invention a data transmitting element (*e.g.*, a personal computer) sends data to the data receiving element (*e.g.*, access network server) so that the data can be transmitted over another network, *e.g.*, the internet. When the

DTE sends data to the DRE without taking into account the capacity of the DRE to send data over the other network, bottle necks and network congestions could be created. To prevent this from happening, in the exemplary embodiment of the present invention, the service level is automatically negotiated with the DRE. In other words, the DTE received a proposed service level indicating the level of service that the DRE can provide in communicating the data of the DTE over the second communications network. As a result, by taking into account the DRE's constraints and limitations in communicating data over the second network, network congestions and other problems can be prevented. This passage is provided by way of an example only and is not intended to limit the scope of the claims in any way.

Chuah, on the other hand, is related to an enhanced, receiver-driven RSVP based tunneling protocol. In general, Chuah discloses a system, which has a sender connected to a tunnel source point (TSP) via T1/E1 lines and a tunnel destination point (TDP) connected to a receiver via T1/E1 lines. The TSP transmits data to the TDP over the Internet using RSVP (tunneling) protocol (col. 2, lines 8 to 18 and col. 4, lines 13 to 28).

In particular, Chuah teaches a sender, which sends a RSVP path message, which specifies the characteristics of the sender (Sender Tspec) and parameters subject to the modification by the routers along the path to the receiver (ADSPEC). TSP receives this message, encapsulates it and transmits it to the TDP. The TDP decapsulates the message, updates the ADSPEC and forwards the message to the receiver. Chuah's receiver computes the parameters needed for this session and sends back a RSVP RESV message. When TDP receives this RSVP RESV message, the TDP allocates tunnels for this session based on the received RSVP RESV message and

encapsulates the message including the number of tunnels allocated and sends it to the TSP. The TSP decapsulates it and uses the assigned number of tunnels to forward messages between the TDP and the TSP, and forwards the remaining portion of the message upstream to a sender (Figs. 3-5; col. 3, lines 1 to 22 and col. 4, line 50 to col. 5, line 23).

In Chuah, however, the TSP receives the RSVP RESV message with tunnel binding object and the TSP uses the assigned tunnels for transmitting data between the TSP and the TDP (col. 5, lines 5 to 12). In other words, Chuah's TSP uses the tunnel_binding objects to send data over the tunnels assigned by the TDP to the TDP and the TSP forwards the remaining portion of the RSVP RESV message upstream to the sender. The TSP uses only the tunnel assignment assigned by the TDP for transmitting data between the TSP and the TDP. The other portion of the message is sent to the sender.

That is, in Chuah, the TSP only uses the assigned tunnels. The assigned tunnels, however, relate only to the communication between the TSP and TDP. In short, Chuah fails to teach or suggest the received service level indicating the service level that the TDP can provide for communicating TSP's data over another network, and notifying the data sending means of this received service level proposal. In other words, the TSP simply receives the tunnels assigned by the TDP and not the service level that the TDP can handle for communicating data over another communications network such as the network between the receiver and the TDP. In Chuah, the TDP determines the appropriate RSVP tunnels and simply sends them to the TSP. The TSP of Chuah has no knowledge of the TDP's capabilities in transmitting data over the

another network. Chuah's TSP only receives the assigned tunnels for communication between the TSP and the TDP.

Therefore, "service level proposal receiving means: adapted to receive from said DRE an IPCP message indicating a proposed service level that said DRE can provide for communicating said data of said DTE over said second communications network, and notifying said DSM of said received service level proposal" where "said DRE receives said data of the DTE over said first communication network and transmits said data of the DTE in said second communications network," as set forth in claim 3 is not disclosed by Chuah, which lacks the TSP receiving a message indicating the proposed service level that DRE can provide for communicating data of the DTE over the second communication network. The TSP of Chuah only receives the tunnel assignment related to a network between the TSP and the TDP and not to another network.

For at least these exemplary reasons, Applicant respectfully submits that independent claim 3 is patentably distinguishable (and is not obvious) over Chuah. Applicant therefore respectfully requests the Examiner to reconsider and to withdraw this rejection of independent claim 3.

Next, with respect to the independent claim 5, which among a number of unique features recites: "service level negotiating and proposing means, coupled with said service level request reception means, for determining a service level that said DRE can provide for communicating said data of said DTE within said second communications network, based on at least one predetermined criterion and on said requested service level, and formulating, as a service level proposal, an IPCP message indicating said determined service level" where the first network is

between the DTE and the DRE and the DRE communicates data of the DTE over the second network.

The Examiner alleges that TSP, TDP, internet, and link between the receiver and the TDP are equivalent to the DTE, the DRE, the first network, and the second network, respectively, as set forth in claim 5. In response to Applicant's arguments, the Examiner simply alleges that Applicant improperly interprets the references without any further description or explanation (page 6 of the Office Action). Applicant respectfully submits that Chuah lacks service level negotiating means for determining a service level that the DRE can provide to communicate data of the DTE in the second communication network where the first communication network is between the DTE and DRE.

Chuah only teaches the tunnel assignments for communication between the TSP and the TDP, as such, the TDP does not assign parameters/tunnels for communicating over a network different from the network between the TSP and the TDP, as set forth in claim 5. In short, the TDP receives the computed parameters needed for the session from the receiver, and executes tunnel assignment for notifying the TSP of the assigned tunnels (Fig. 5, col. 5, lines 1 to 23). Chuah fails to teach or suggest the TDP determining parameters for communicating over the network between the receiver and the TDP, for example. These parameters are determined by the receiver. The TDP assigns tunnels for communicating data between the TSP and the TDP.

In other words, Chuah fails to teach or suggest "service level negotiating and proposing means, coupled with said service level request reception means, for determining a service level that said DRE can provide for communicating said data of said DTE within said second

communications network,” which lacks determining the service level that DRE can provide for communicating data of the DTE over the second network. For at least these exemplary reasons, Applicant respectfully submits that independent claim 5 is patentably distinguishable (and is not obvious) over Chuah. Applicant therefore respectfully requests the Examiner to reconsider and withdraw this rejection of independent claim 5 or at least to rebut Applicant’s arguments.

With respect to independent claim 6, among a number of unique features not taught by the prior art reference cited by the Examiner, it recites service level negotiating and proposing means, similar to the service level negotiating and proposing means argued above with respect to claim 5. Since claim 6 contains features that are similar to the features argued above with respect to claim 5, those arguments are respectfully submitted to apply with equal force here. For at least substantially the same exemplary reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of independent claim 6.

With respect to the independent claim 7, among a number of unique features not taught by the prior art reference cited by the Examiner, it recites a service level proposal receiving sub-module, similar to the service level proposal receiving means argued above with respect to claim 3. Since claim 7 contains features that are similar to the features argued above with respect to claim 3, those arguments are respectfully submitted to apply with equal force here. For at least substantially the same exemplary reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of independent claim 7.

With respect to the independent claims 9-11, among a number of unique features not taught by the prior art reference cited by the Examiner, they recite service level negotiating and

proposing means, similar to the service level negotiating and proposing means argued above with respect to claim 5. Since claims 9-11 contain features that are similar to the features argued above with respect to claim 5, those arguments are respectfully submitted to apply with equal force here. For at least substantially the same exemplary reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of independent claims 9-11. Claim 12 is patentable at least by virtue of its dependency on claim 11.

In addition, independent claim 11, among a number of unique features recites: “formulating, at said DRE, an Internet Protocol Control Protocol proposal indicating said determined service level.” In Chuah, the TDP (alleged DRE) generates the tunnel assignment and includes it into the RSVP RESV message, which the TDP encapsulates. In other words, the TDP only encapsulates the RSVP RESV message and does not generate this message. The TDP only generates TUNNEL_BINDING object but this object relates to the tunnel assignment between the TDP and the TSP. In other words, Chuah fails to disclose a TDP that would formulate a proposal indicating the service level for communicating the data of the TSP over the network between the TDP and the receiver, for example. For at least this additional reason, Applicant respectfully submits that independent claim 11 is patentably distinguishable and is patentable over Chuah.

Claim Rejection under 35 U.S.C. § 103(a)

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Chuah. Applicant respectfully traverses this rejection with respect to the dependent upon claim 3, claim 4. Applicant has already demonstrated that Chuah does not meet all the requirements or render

obvious independent claim 3. Therefore, claim 4 is patentable at least by virtue of its dependency.

Moreover, the Examiner alleges that Chuah teaches all the functionality performed in this dependent claim but that Chuah fails to explicitly disclose the structure of the system as set forth in claim 4. Next, the Examiner alleges that in order to perform the functions, the system disclosed by Chuah must have a plurality of elements, which are interconnected to implement the functions of the system (see page 5 of the Office Action). However, Applicant respectfully points out that the Examiner has not indicated how is the particular arrangement of elements as set forth in claim 4 is obvious. There could be other elements or other interconnections to perform the same functionality. In addition, Applicant respectfully submits that the particular arrangement as set forth in claim 4 is not obvious in view of Chuah, which fails to teach or suggest any arrangement of elements. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection or to rebut Applicant's arguments submitted in the Amendment under 37 C.F.R. § 1.111 and repeated herein.

Allowable Subject Matter

Applicant thanks the Examiner for indicating that claim 8 would be allowable if rewritten in its independent form including all the limitations of the base claim and any intervening claims. Applicant herein respectfully rewrites claim 8 into its independent form. Therefore, it is appropriate and necessary for the Examiner to now allow claim 8.

Amendment under 37 C.F.R. § 1.116
U.S. Application No.: 09/384,422

Attorney Docket No.: Q55464

New Claims


In order to provide more varied protection, Applicant adds claims 13-16. Claims 13-16 are patentable at least by virtue of their dependency on claim 1.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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